

REMARKS

This submission for a Request for Continued Examination (RCE) under 37 CFR 1.114, pursuant to 37 CFR 1.137(b)(1) is fully responsive to the Office Action dated 01 JUL 2004.

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Claims Status Summary:

Claims 1 to 29 are pending in the application.

The Office Action objected to the amendment filed on 29 AUG 2003 under 35 U.S.C. 132.

10 Claims 12, 16, 24, 25, and 26 were rejected under 35 U.S.C. 112, second paragraph.

Claims 1, 2, 4, 6, 7, 16 – 18, 20, and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,809,199 to Tran.

15 Claims 1, 2, 4 - 10, and 16, 18 – 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,755,998 to Yamazakai et al.

Claims 1, 2, 4-6, 8, 9, 16, 18 – 20, and 22 – 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,386,163 to Kodama.

Applicant notes, with appreciation, the Office Action's notification for the allowance of claim 11.

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I. Amendment Objected to under 35 USC 132:

The Final Office Action objected to the amendment filed on 29 AUG 2003 under 35 USC 132.

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The Final Office Action stated

“The amended to Table II results in the table being new matter. The examples have had the mol% values in the BaF₂+RF_x column of the table changed which results in the base glass composition now comprising 100 mol% of glass. While this amendment clarifies to one of ordinary skill in the art that the dopant

component, which in terms of weight percent is calculated from the total weight of base glass, the specification does not support the specific changes to the examples in Table II.”

5 As was stated in the amendment filed on 29 AUG 2003, the amendments to the table simply correct clerical error.

In response, the Office Action stated:

10 “MPEP 2136.07 states: ‘An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification, but also the appropriate correction. In re Oda...’”

The Final Office Action continued by stating:

15 “While the changes to the table are within the scope of the ranges defined by the original specification, it is unclear how one of ordinary skill in the art would have known that the undefined 2% from the first eight examples should have been added to the $\text{BaF}_2 + \text{RF}_x$ component rather than $\text{Ba}(\text{PO}_3)_2$, $\text{Al}(\text{PO}_3)_2$, or an unspecified component. Therefore, the amendment constitutes new matter.”

20 The following is respectfully submitted to clarify how one of ordinary skill in the art would have known that the unidentified 2% from the first eight examples should have been added to the $\text{BaF}_2 + \text{RF}_x$ component, and not $\text{Ba}(\text{PO}_3)_2$, $\text{Al}(\text{PO}_3)_2$, or an unspecified component.

25 Based on the disclosure of the present invention, one of ordinary skill in the art would have known to increase the fluoride ($\text{BaF}_2 + \text{RF}_x$) content in the fluorophosphate glass system of the present invention, which will improve the optical characteristics of the glass and, in particular, improve the transparency within the ultraviolet, visual, and

near infrared optics portion of the optical spectra, allowing the glass system of the present invention to be used for laser applications, amplifiers, and high density optical storage. Support for this statement is provided within the SUMMARY OF THE INVENTION, paragraph [0010]. Hence, it is respectfully submitted that the amendment to the Table II
5 does not constitute new subject matter under 35 USC 135.

Accordingly, it is respectfully requested that the objections under 35 USC 132 be withdrawn.

10 **II. Claim Rejections – 35 USC 112:**

Claims 12, 16, 24, 25, and 26 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15 **Claim 12:**

The Office Action states:

“Claims 12 is rejected under 35 USC 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. The omitted elements were: Whehter the dopant is in terms of weight
20 or mol%.”

Applicant has corrected this obvious clerical error by amending claim 12 as follows:

25 The newly amended claim 12 recites:

*“A fluorophosphate glass formed from a composition comprising:
a metaphosphate, $Ba(PO_3)_2$, approximately 10 mol percent;
a metaphosphate, $Al(PO_3)_3$, approximately 18 mol percent;
a fluoride, BaF_2 , approximately 72 mol percent; and*

a dopant, approximately 20 weight percent: of the oxide of erbium (Er)."

5 The amendment adds the language "*weight*" for the measuring term of the dopant, which is obviously in terms of weight percent. No new subject matter has been added by this amendment. Support for claim 12 amendment is found throughout the entire disclosure, which clearly show that the glass base composition of the glass system of the present invention is based on mol%, and its dopents is based on weight%.

10 Hence, it is respectfully submitted that claim 12 is no longer incomplete for omitting essential elements.

Accordingly, it is respectfully requested that the rejection of claim 12 under 35 USC 112, second paragraph, as being indefinite be withdrawn.

15 Claim 16 and 24:

The Office Action states:

20 "Claims 16 and 24 are directed to a barium fluorophosphates glass defined by component ranges. If one of ordinary skill in the art selected the minimum values for each of the met phosphates and the maximum for the fluoride the base glass components would total over 100 mol%. This renders the claims indefinite since it is not clear from the specification that the base glass can comprise more than 100 mol%."

Claim 16:

25 Applicant has amended claims 16 as follows:

The newly amended claim 16 recites:

*"A fluorophosphate glass formed from a composition comprising:
a metaphosphate, Ba(PO₃)₂, from 5 to 60 mol percent;*

a metaphosphate, $Al(PO_3)_3$, from 5 to 60 mol percent;
a fluoride, $BaF_2 + RF_x$ wherein RF_x is selected from a group consisting of CaF_2 , MgF_2 , PbF_2 , and BiF_3 , from 10 to 90 mol percent;
a dopant; and
5 *wherein the selection of the mol percent for the fluoride, $BaF_2 + RF_x$ is a determining factor from which the mol percent of the metaphosphates are selected to provide a 100 percent mol composition for the fluorophosphate glass."*

10 The amendment changes the minimum range for the metaphosphates by reducing them from 10 to 5 mol percent. Accordingly, selection of the minimum values for each of the metaphosphates and the maximum for the fluoride base glass components would total 100 mol%. In addition, the amendment further adds the limitation that "*the selection of the mol percent for the fluoride, $BaF_2 + RF_x$ is a determining factor from which the mol percent of the metaphosphates are selected to provide a 100 percent mol*
15 *composition for the fluorophosphate glass."* That is, the fluoride, $BaF_2 + RF_x$ is selected first, and then the metaphosphates are selected commensurately so to add up to 100 mol%.

20 It is respectfully submitted that no new subject matter has been added by this amendment. Support for claim 16 amendment is found in the last entry of Table II.

Hence, it is respectfully submitted that claim 16 is no longer indefinite for claiming ranges that total over 100 mol%.

25 Accordingly, it is respectfully requested that the rejection of claim 16 under 35 USC 112, second paragraph as being indefinite be withdrawn.

Claim 24:

Applicant has amended claims 24 as follows:

The newly amended claim 24 recites:

"A fluorophosphate glass formed from a composition comprising:

a metaphosphate, $Ba(PO_3)_2$, from 5 to 45 mol percent;

5 *a metaphosphate, $Al(PO_3)_3$, from 5 to 30 mol percent;*

a fluoride, $BaF_2 + R F_x$ wherein $R F_x$ is selected from the group comprising of CaF_2 , MgF_2 , PbF_2 and BiF_3 , from 45 to 90 mol percent; and

10 *a dopant, from 2 to 20 weight percent, selected from the group consisting of: the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu); an oxide of manganese (Mn); and mixtures thereof; and*

wherein the selection of the mol percent for the fluoride, $BaF_2 + R F_x$ is a determining factor from which the mol percent of the metaphosphates are selected to provide a 100 percent mol composition for the fluorophosphate glass."

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The amendment changes the minimum range for the metaphosphates $Ba(PO_3)_2$, by reducing it from 10 to 5 mol percent. Accordingly, selection of the minimum values for each of the metaphosphates and the maximum for the fluoride base glass components would total 100 mol%. In addition, the amendment further adds the limitation that *"the*
20 *selection of the mol percent for the fluoride, $BaF_2 + R F_x$ is a determining factor from which the mol percent of the metaphosphates are selected to provide a 100 percent mol composition for the fluorophosphate glass."* That is, the fluoride, $BaF_2 + R F_x$ is selected first, and then the metamorphosphates are selected commensurately so to add up to 100 mol%.

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It is respectfully submitted that no new subject matter has been added by this amendment. Support for claim 24 amendment is found in Table I, under the heading Range II.

Hence, it is respectfully submitted that claim 24 is no longer indefinite for claiming ranges that total over 100 mol%.

Accordingly, it is respectfully requested that the rejection of claim 24 under 35
5 USC 112, second paragraph as being indefinite be withdrawn.

Claim 25 and 26:

The Office Action states:

10 "Claims 25 and 26 are directed to a barium fluorophosphates glass comprising 10 mol% $\text{Ba}(\text{PO}_3)_3$, 80 mol% $\text{BaF}_2 + \text{RF}_x$, and a dopant of either 5 mol% Nd_2O_3 or 10 mol% Er_2O_3 . The base glass components total 108 mol%, which renders the claims indefinite since it is not clear from the specification that the base glass can comprise more than 100 mol%."

15 Claim 25:

Applicant has amended claims 25 as follows:

The newly amended claim 25 recites:

20 "A fluorophosphate glass formed from a composition comprising:
a metaphosphate, $\text{Ba}(\text{PO}_3)_2$, approximately 10 mol percent;
a metaphosphate, $\text{Al}(\text{PO}_3)_3$, approximately 18 mol percent;
a fluoride, $\text{BaF}_2 + \text{RF}_x$ wherein RF_x is selected from the group comprising of
 CaF_2 , MgF_2 , PbF_2 and BiF_3 , approximately 72 mol percent; and
a dopant, approximately 5 weight percent: of the oxide of neodymium (Nd)."

25

The amendment changes the approximate amount for the fluoride content from 90 to 72 mol percent. Accordingly, the base glass components would total 100 mol%.

It is respectfully submitted that no new subject matter has been added by this amendment. Support for claim 25 amendment is found in Table I, under the heading Range II.

5 Hence, it is respectfully submitted that claim 25 is no longer indefinite for claiming a total of mol%, which is over 100.

Accordingly, it is respectfully requested that the rejection of claim 25 under 35 USC 112, second paragraph as being indefinite be withdrawn.

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Claim 26:

Applicant has amended claims 26 as follows:

The newly amended claim 26 recites:

15 *"A fluorophosphate glass formed from a composition comprising:
a metaphosphate, $Ba(PO_3)_2$, approximately 10 mol percent;
a metaphosphate, $Al(PO_3)_3$, approximately 18 mol percent;
a fluoride, $BaF_2 + RFx$ wherein RFx is selected from the group comprising of
 CaF_2 , MgF_2 , PbF_2 and BiF_3 , approximately 72 mol percent; and
20 a dopant, approximately 10 weight percent: of the oxide of erbium (Er)."*

The amendment changes the approximate amount for the fluoride content from 90 to 72 mol percent. Accordingly, the base glass components would total 100 mol%.

25 It is respectfully submitted that no new subject matter has been added by this amendment. Support for claim 26 amendment is found in Table I, under the heading Range II.

Hence, it is respectfully submitted that claim 26 is no longer indefinite for claiming a total of mol%, which is over 100.

Accordingly, it is respectfully requested that the rejection of claim 26 under 35
5 USC 112, second paragraph as being indefinite be withdrawn.

III. Claim Rejections – 35 USC 103(a) – Tran (5,809,199):

Claims 1, 2, 4, 6, 7, 16 – 18, 20, and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,809,199 to Tran.

Applicants respectfully traverse the rejection, the interpretation, and the modification of the Tran in view of the newly amended claims.

Claim 1:

15 Claim 1 has been amended to recite:

*“A fluorophosphate glass formed from a composition comprising:
a metaphosphate, $Ba(PO_3)_2$, from 10 to 60 mol percent;
a metaphosphate, $Al(PO_3)_3$, from 10 to 60 mol percent;
a fluoride, $BaF_2 + RF_x$, wherein RF_x is selected from the group comprising of
20 CaF_2 , MgF_2 , PbF_2 , and BiF_3 , from 10 to 80 mol percent; and
a rare earth dopant selected from a group consisting of neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu); an oxide of manganese (Mn); and mixtures thereof.”*

25 Claim 1 has been specifically amended to recites, inter alia, the limitation of “...a rare earth dopant selected from a group consisting of neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu); an oxide of manganese (Mn); and mixtures thereof.”

With respect to the claimed rare earth dopant, it is not clear if Tran is disclosing rare earth elements or rare elements, as has been disclosed in column 3, line 55+, which states "Ln = Lanthanide (La, Y, Sc,...)." The Yttrium "Y" and Scandium "Sc" are not rare earth elements, but are merely rare elements. The only rare earth element is the Lanthanum La, which is not used, disclosed, nor claimed by the present invention. Hence, even conversation of the rare earth element Lanthanum La of Tran to weight% would not meet the claimed limitations.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 1 under 35 USC 103(a) because the Tran reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 1 is allowable over the cited reference and solicits reconsideration and allowance of claim 1.

Claim 2:

Claim 2 has been amended to recite:

"A fluorophosphates glass formed from a composition comprising:

a metaphosphate, $Ba(PO_3)_2$, from 10 to 60 mol percent;

a metaphosphate, $Al(PO_3)_3$, from 10 to 60 mol percent;

a fluoride, RF_x , from 10 to 80 mol percent, selected from the group consisting of:

BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 ; and

a dopant."

Claim 2 has been amended to recite, inter alia, the limitation

"...a fluoride, RF_x , from 10 to 80 mol percent, selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 ;"

In relation to fluorides, Tran uses the following:

- RF_2 , where R = Ca, Mg, Ba, Sr

- MF, where M = Li, Na, K, Cs, Rb

According to claim 2, the base composition of the glass of the present invention is comprised of metaphosphates $\text{Ba}(\text{PO}_3)_2$ and $\text{Al}(\text{PO}_3)_3$, and a fluoride RF_x , with R selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 . The claimed glass composition is different from that which is taught by Tran with a base composition of P_2O_5 , $\text{Al}_2(\text{PO}_3)_3$, $\text{Ba}(\text{PO}_3)_2$, $\text{Mg}(\text{PO}_3)_2$, and/or NaPO_3 , regardless of the mol% amounts or overlapping ranges thereof. The use of any of the component P_2O_5 , $\text{Mg}(\text{PO}_3)_2$, or NaPO_3 taught by Tran, constitutes a completely different glass system, regardless of any composition overlapping ranges.

In addition, Tran uses Strontium Sr, which is an additional element, which is not covered by claim 2. Further, Tran uses alkaline metal fluorides MF, with M= alkaline = Li, Na, K, Cs, Rb. The instant invention does not teach, use, or claim any alkaline metals.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 2 under 35 USC 103(a) because the Tran reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 2 is allowable over the cited reference and solicits reconsideration and allowance of claim 2. Further, and in particular, since claims 4, 5, 6, and 7 depend from the claim 2 and incorporate all of its limitations, they are patentable for the same reasons given with respect to claim 2, and include additional limitations, which further distinguish them from the references cited. Therefore, Applicant respectfully submits that claim 4, 5, and 6 are also allowable over the cited reference and solicits reconsideration and allowance of these claims.

Claim 16:

Claim 16 has been amended to recite:

*"A fluorophosphate glass formed from a composition comprising:
a metaphosphate, $Ba(PO_3)_2$, from 5 to 60 mol percent;
a metaphosphate, $Al(PO_3)_3$, from 5 to 60 mol percent;
a fluoride, $BaF_2 + RF_x$ wherein RF_x is selected from a group consisting of CaF_2 ,
5 MgF_2 , PbF_2 , and BiF_3 , from 10 to 90 mol percent;
a dopant; and
wherein the selection of the mol percent for the fluoride, $BaF_2 + RF_x$ is a
determining factor from which the mol percent of the metaphosphates are selected to
provide a 100 percent mol composition for the fluorophosphate glass."*

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Claim 16 has been amended to recite, inter alia, the limitation

*"...a fluoride, $BaF_2 + RF_x$ wherein RF_x is selected from a group consisting of
 CaF_2 , MgF_2 , PbF_2 , and BiF_3 , from 10 to 90 mol percent;"*

15

In relation to fluorides, Tran uses the following:

- RF_2 , where $R = Ca, Mg, Ba, Sr$
- MF , where $M = Li, Na, K, Cs, Rb$

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According to claim 16, the base composition of the glass of the present invention
is comprised of metaphosphates $Ba(PO_3)_2$ and $Al(PO_3)_3$, and a fluoride $BaF_2 + RF_x$, with
R selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 . The
claimed glass composition is different from that which is taught by Tran with a base
composition of P_2O_5 , $Al_2(PO_3)_3$, $Ba(PO_3)_2$, $Mg(PO_3)_2$, and/or $NaPO_3$, regardless of the
mol% amounts or overlapping ranges thereof. The use of any of the component P_2O_5 ,
25 $Mg(PO_3)_2$, or $NaPO_3$ taught by Tran, constitutes a completely different glass system,
regardless of any composition overlapping ranges.

In addition, Tran uses Strontium Sr, which is an additional element, which is not
covered by claim 16. Further, Tran uses alkaline metal fluorides MF, with M= alkaline =

Li, Na, K, Cs, Rb. The instant invention does not teach, use, or claim any alkaline metals.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 16 under 35 USC 103(a) because the Tran reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 16 is allowable over the cited reference and solicits reconsideration and allowance of claim 16. Further, and in particular, since claims 18, 19, 20, and 21 depend from the claim 16 and incorporate all of its limitations, they are patentable for the same reasons given with respect to claim 16, and include additional limitations, which further distinguish them from the references cited. Therefore, Applicant respectfully submits that claim 18, 19, 20, and 21 are also allowable over the cited reference and solicits reconsideration and allowance of these claims.

IV. **Claim Rejections – 35 USC 103(a) – Yamazakai et al. (5,755,998):**

Claims 1, 2, 4 - 10, and 16, 18 – 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,755,998 to Yamazakai et al.

Applicants respectfully traverse the rejection, the interpretation, and the modification of the Yamazakai et al in view of the newly amended claims.

Claims 1, 8, 9, 10, 23, 24:

Claims 1, 8, 9, 10, 23, and 24 have been specifically amended to recite, inter alia, the limitation of “...a ... dopant selected from a group consisting of neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu); an oxide of manganese (Mn); and mixtures thereof.”

Yamazakai et al discloses the use of rare earth element La, Y, Gd, Lu, Dy, and Ce, which are not used, disclosed, nor claimed by the present invention. Hence, even conversation of the rare earth elements of Yamazakai to weight% would not meet the claimed limitations.

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Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 1, 8, 9, 10, 23, and 24 under 35 USC 103(a) because the Yamazakai et al reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 1, 8, 9, 10, 23, and 24 is allowable over the cited reference and solicits reconsideration and allowance of claim 1, 8, 9, 10, 23, and 24.

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Claims 2:

Claims 2 has been amended to recite, inter alia, the limitation

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"...a fluoride, RF_x , from 10 to 80 mol percent, selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 ;"

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According to claim 2, the base composition of the glass of the present invention is comprised of metaphosphates $Ba(PO_3)_2$ and $Al(PO_3)_3$, and a fluoride RF_x , with R selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 . The claimed glass composition is different from that which is taught by Yamazaki et al with a components or elements Li, Na, K, Cl, Zn, Y, and La, regardless of the mol% amounts or overlapping ranges thereof. The use of any of the component Li, Na, K, Cl, Zn, Y, and La taught by Yamazaki et al constitutes a completely different glass system, regardless of any composition overlapping ranges. The instant invention does not teach, use, or claim Li, Na, K, Cl, Zn, Y, and La and further, any alkaline metals.

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Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 2 under 35 USC 103(a) because the Yamazaka et al. reference does not render as

obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 2 is allowable over the cited reference and solicits reconsideration and allowance of claim 2. Further, and in particular, since claims 4, 5, 6, and 7 depend from the claim 2 and incorporate all of its limitations, they are patentable for the same reasons given with respect to claim 2, and include additional limitations, which further distinguish them from the references cited. Therefore, Applicant respectfully submits that claim 4, 5, and 6 are also allowable over the cited reference and solicits reconsideration and allowance of these claims.

10 Claims 16 - 21:

Claim 16 has been amended to recite, inter alia, the limitation

"...a fluoride, $BaF_2 + R F_x$ wherein $R F_x$ is selected from a group consisting of CaF_2 , MgF_2 , PbF_2 , and BiF_3 , from 10 to 90 mol percent;"

15 According to claim 16, the base composition of the glass of the present invention is comprised of metaphosphates $Ba(PO_3)_2$ and $Al(PO_3)_3$, and a fluoride $BaF_2 + R F_x$, with R selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 . The claimed glass composition is different from that which is taught by Yamazaki et al with a components or elements Li, Na, K, Cl, Zn, Y, and La, regardless of the mol% amounts or overlapping ranges thereof. The use of any of the component Li, Na, K, Cl, Zn, Y, and La taught by Yamazaki et al constitutes a completely different glass system, regardless of any composition overlapping ranges. The instant invention does not teach, use, or claim Li, Na, K, Cl, Zn, Y, and La and further, any alkaline metals.

25 Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 16 under 35 USC 103(a) because the Yamazaki et al reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 16 is allowable over the cited reference and solicits reconsideration and allowance of claim 16. Further, and in particular, since claims 18,

19, 20, and 21 depend from the claim 16 and incorporate all of its limitations, they are patentable for the same reasons given with respect to claim 16, and include additional limitations, which further distinguish them from the references cited. Therefore, Applicant respectfully submits that claim 18, 19, 20, and 21 are also allowable over the cited reference and solicits reconsideration and allowance of these claims.

V. Claim Rejections – 35 USC 103(a) – Kodama (4,386,163):

Claims 1, 2, 4-6, 8, 9, 16, 18 – 20, and 22 – 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,386,163 to Kodama.

Applicants respectfully traverse the rejection, the interpretation, and the modification of the Kodama in view of the newly amended claims.

Claims 1, 8, 9, 22, 23, 24:

Claims 1, 8, 9, 22, 23, and 24 have been specifically amended to recite, inter alia, the limitation of “...a ... dopant selected from a group consisting of neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu); an oxide of manganese (Mn); and mixtures thereof.”

Kodama discloses the use of elements Y, Ca, Zn, Sr, and Nb which are not used, disclosed, nor claimed by the present invention. Hence, even the conversion of the amount from weight% to mol% of elements disclosed by Kodama would not meet the claimed limitations.

Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 1, 8, 9, 22, 23, and 24 under 35 USC 103(a) because the Kodama reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence,

Applicant respectfully submits that claim 1, 8, 9, 22, 23, and 24 is allowable over the cited reference and solicits reconsideration and allowance of claim 1, 8, 9, 22, 23, and 24.

Claims 2:

- 5 Claims 2 has been amended to recite, inter alia, the limitation
 “...a fluoride, RF_x , from 10 to 80 mol percent, selected from the group consisting
 of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 ;

- According to claim 2, the base composition of the glass of the present invention is
10 comprised of metaphosphates $Ba(PO_3)_2$ and $Al(PO_3)_3$, and a fluoride RF_x , with R selected
 from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 . The claimed glass
 composition is different from that which is taught by Kodamal with components or
 elements Y, Ca, Zn, Sr, and Nb, regardless of the mol% amounts or overlapping ranges
 thereof. The use of any of the component Y, Ca, Zn, Sr, and Nb taught by Komada
15 constitutes a completely different glass system, regardless of any composition
 overlapping ranges. The instant invention does not teach, use, or claim Y, Ca, Zn, Sr,
 and Nb and further, any alkaline metals.

- Accordingly, Applicant respectfully requests the withdrawal of the rejection of
20 claim 2 under 35 USC 103(a) because the Komada reference does not render as obvious
 the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully
 submits that claim 2 is allowable over the cited reference and solicits reconsideration and
 allowance of claim 2. Further, and in particular, since claims 4, 5, 6, and 7 depend from
 the claim 2 and incorporate all of its limitations, they are patentable for the same reasons
25 given with respect to claim 2, and include additional limitations, which further
 distinguish them from the references cited. Therefore, Applicant respectfully submits
 that claim 4, 5, and 6 are also allowable over the cited reference and solicits
 reconsideration and allowance of these claims.

Claims 16 - 21:

Claim 16 has been amended to recite, inter alia, the limitation

"...a fluoride, $BaF_2 + R F_x$ wherein $R F_x$ is selected from a group consisting of CaF_2 , MgF_2 , PbF_2 , and BiF_3 , from 10 to 90 mol percent;"

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According to claim 16, the base composition of the glass of the present invention is comprised of metaphosphates $Ba(PO_3)_2$ and $Al(PO_3)_3$, and a fluoride $BaF_2 + R F_x$, with R selected from the group consisting of: BaF_2 , CaF_2 , MgF_2 , PbF_2 , and BiF_3 . The Komada with components or elements Y, Ca, Zn, Sr, and Nb, regardless of the mol% amounts or overlapping ranges thereof. The use of any of the component Y, Ca, Zn, Sr, and Nb taught by Komada constitutes a completely different glass system, regardless of any composition overlapping ranges. The instant invention does not teach, use, or claim Y, Ca, Zn, Sr, and Nb and further, any alkaline metals.

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Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 16 under 35 USC 103(a) because the Komada reference does not render as obvious the claimed limitations for the aforementioned reasons. Hence, Applicant respectfully submits that claim 16 is allowable over the cited reference and solicits reconsideration and allowance of claim 16. Further, and in particular, since claims 18, 19, 20, and 21 depend from the claim 16 and incorporate all of its limitations, they are patentable for the same reasons given with respect to claim 16, and include additional limitations, which further distinguish them from the references cited. Therefore, Applicant respectfully submits that claim 18, 19, 20, and 21 are also allowable over the cited reference and solicits reconsideration and allowance of these claims.


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CONCLUSION

It is respectfully submitted that the case is now in condition for allowance, and an early notification of the same is requested. If it is believed that a telephone interview will help further the prosecution of this case, Applicant respectfully requests that the undersigned be contacted at listed telephone number 818-248-1465.

Respectfully submitted,

04 JUN 2006
Date


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